

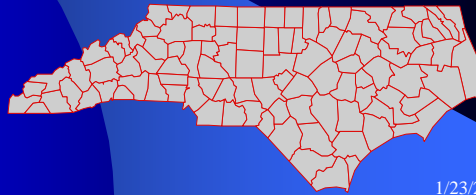
NORTH CAROLINA AQUACULTURE UPDATE 2007

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North Carolina State University

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Molly Sandfoss, Skip Thompson
Marc Turano, Harry Daniels
NC Cooperative Extension

Debra Sloan, NCDA&CS



1/23/2008

Thank you to all of the farms that provided the data to us for this presentation!

This presentation will be posted
online at:
www.ncaquaculture.org
after the conference.



Mike Frinsko and Joe Thompson 1/23/2008

Freshwater

Trout (90)
Catfish (34)
Striped Bass (14)
Tilapia (9)
Freshwater Prawns (8)
Crawfish (5)
Southern Flounder (1)
Yellow Perch (1)
Sturgeon Caviar (1)
Ornamentals (2)

2007 NORTH CAROLINA AQUACULTURE SPECIES



Keith Hairr & Dean Raynor
at an NC State Flounder
Workshop

Saltwater

Clams & Oysters (257 leases)
Soft Shell Crabs (297 shedders)
Black Sea Bass (research)

1/23/2008

NORTH CAROLINA AQUACULTURE BY REGION

Cool and Coldwater
Flow-Through
Tank Production

Water Limited
Recirculating Tank
Production

Warmwater
Pond Production



1/23/2008

2007 NORTH CAROLINA TROUT INDUSTRY

Surviving the Drought

41 Food Fish Producers
3,427,500 Pounds (- 1.1 m)

@ \$1.41 / Pound (- \$0.01)

Farm Gate Value = \$4,845,300



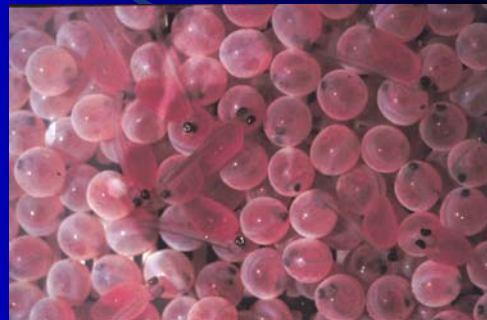
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2007 NORTH CAROLINA TROUT INDUSTRY

17 Hatcheries
9,352,000 Fingerlings

@ \$0.08 each

Farm Gate Value = \$790,550



“Eyed” Trout Eggs

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2007 NORTH CAROLINA TROUT INDUSTRY

26 Fee Fishing
Operations



272,000 Pounds (-32,500)
@ \$3.46 / Pound (+ \$0.11)

Farm Gate Value = \$941,000

**MORGAN MILL
TROUT FISHING
RESORTS**
"SINCE 1983"

RULES	ADMISSION
<ul style="list-style-type: none"> HAVE FUN BE CAREFUL! WE ARE NOT RESPONSIBLE FOR ACCIDENTS DO NOT THROW ANY FISH BACK COME BACK TO SEE US! 	\$1 PER PERSON GROUP RATES \$5.00 INCLUDES POLES & BAIT FISH CLEANED & ICED DOWN FREE FILLETING AVAILABLE PICNIC AREA RESTROOMS

**Please Pay Admission
Before Fishing**

RAINBOW TROUT
 \$2.95 Lb. FISH OUT OR DIP OUT
 TO CATCH FISH FASTER
 USE WORMS \$2.25

THANK YOU
OWEN FAMILY
 Open Year Round
 Mon - Sat 8 Til 6 Sun Til 6
 Closed Weekends Dec 1 Thru Mar 1

1/23/2008

2007 NORTH CAROLINA TROUT INDUSTRY STATUS

2 Processors (- 2)

1,600,000 lbs (- 500,000 lbs)
(processed product)

Average Price
of Products
= \$4.84 / pound (+ \$0.55)



Value Added Trout Products

Value = \$7,740,000 (- \$1.275,000)

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2007 NORTH CAROLINA TROUT INDUSTRY IMPACT

Farm Gate and
Processed Product
Value = \$14,316,850
(- \$2,986,150 drought impact)



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2007 NORTH CAROLINA CATFISH INDUSTRY

34 Food Fish Producers
2,300 Pond Acres
9,014,000 Pounds
Weighted Average Price = \$0.819



Farm Gate Value = \$7,382,466

Catfish Farm

1/23/2008

2007 NORTH CAROLINA CATFISH INDUSTRY

1 Fingerling Producer
6,500,000 fingerlings

Farm Gate Value
= \$520,000



Catfish FINGER-lings

1/23/2008

2007 NORTH CAROLINA CATFISH SALES & PROCESSING

1 Processor

Processed Value=
\$13,200,000



2007 NORTH CAROLINA FEEDS PRODUCTION

1 Mill

Producing 25.2 million
pounds of feed



Product Value= \$4,000,000



Carolina Fish Feeds , Greenville, NC

1/23/2008

2007 NORTH CAROLINA CATFISH INDUSTRY VALUE

Farm Gate, Processed
Value Feed Milling
= \$25,102,466



1/23/2008

2007 NORTH CAROLINA HYBRID STRIPED BASS INDUSTRY*

14 Food Fish Producers

763 Pond Acres

2,666,000 Pounds *

@ \$2.95 – \$3.00 / Pound

Farm Gate Value = \$7,864,700



Dr. Craig Sullivan
NC State University

* 14 Active and 13 Reporting

1/23/2008

2007 NORTH CAROLINA HYBRID STRIPED BASS INDUSTRY

5 Hatcheries*

5,010,000 Fingerlings
Produced

@ \$0.20 each

Farm Gate Value = \$1,002,000



Moving & Grading Hybrid Bass Fingerlings

* 5 Active and 4 Reporting

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2007 NORTH CAROLINA TILAPIA INDUSTRY STATUS

9 Growout Barns
1,645,835 Pounds
average price \$2.00/ lb. (+\$0.20)

Farm Gate Value
= \$3,291,670



Dale Pridgen, Tilapia Farmer

1/23/2008

2007 NORTH CAROLINA TILAPIA INDUSTRY STATUS

2 Fingerling Barns
1,452,000 each
approx. \$0.60 each

Farm Gate Value
= \$871,200



Dale Pridgen, Tilapia Farmer

1/23/2008

2007 NORTH CAROLINA FLOUNDER INDUSTRY STATUS

1 Operation: Hatchery,
Nursery Tanks

75,000 Fingerlings
Produced
Valued at: \$112,500



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2007 NORTH CAROLINA YELLOW PERCH STATUS

1 Fingerling Grower
5 Acres of Production

175,000 Fish Sold
Farm Gate Value = \$26,000



Collecting Fish Eggs



Yellow Perch Fingerlings

1/23/2008

2007 NORTH CAROLINA CRAWFISH INDUSTRY STATUS*

5 Active Growers

39 Acres

9,369 Pounds

\$3.00 / lb.

Farm Gate Value = \$28,107

Crawfish



1/23/2008

2007 NORTH CAROLINA FRESHWATER PRAWNS STATUS

8 Growers

20 Acres*

10,000 Pounds

60% frozen tails \$16 / lb.

40% whole fresh \$8 / lb.

Farm Gate Value =

\$80,000

* 7 acres not in production



Small Production Ponds



Joe Thompson
Alamance County

1/23/2008

2007 NORTH CAROLINA FRESHWATER PRAWNS STATUS

1 Hatchery
50,000 post larvae

1 Nursery
350,000 Juveniles



Freshwater Prawns

1/23/2008

2007 NORTH CAROLINA CLAM & OYSTER INDUSTRY STATISTICS*

257 Leaseholders
1,842 Acres Planted
4993 Bushels Clams
9276 Bushels Oysters
Farm Gate Value = \$528,017



Washing Oysters

*data from Oct. 2006-Oct. 2007

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2007 NORTH CAROLINA Blue Crab Shedding INDUSTRY STATISTICS



crab molting

297 Active Permits (-41)

365,046 pounds

Farm Gate Value = \$1,670,212



crab shedding tanks

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2007 NORTH CAROLINA Sturgeon (for caviar) The LaPaz Group



6 – 4,000 gal. tanks
4 – 25,000 gal. tanks

Atlantic Sturgeon, Russian Sturgeon
Siberian Sturgeon

Build-Out = 40 – 25,000 gal. tanks

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2007 NORTH CAROLINA Aquaculture Operations and Farm Gate Value

165 Farms &
257 Shell Fish Leases
297 Crab Shedders

Farm Gate =
\$29,953,722



Aquaculture = Diversification for Family Farms
1/23/2008

2007 NORTH CAROLINA Aquaculture Processors & Product Value

3 Processing Plants

Processed Product
Value = \$20,940,000



Sydney Seafood Market

1/23/2008

2007 NORTH CAROLINA Aquaculture Farm Gate, Processed Product and Feed Value

\$54,893,722

1/23/2008

2007 NORTH CAROLINA Two Extraordinary Gifts



**Dr. I.J. Won, Geophex Foundation,
Raleigh: \$500,000 for the
development of a marine
aquaculture research station**



**LaPaz, LLC, Lenoir : \$500,000
for biological & engineering
research in intensive fish
culture.**

1/23/2008

2007 US AQUACULTURE CATFISH USDA STATISTICS

980 -1025 Farms (- 5%)
165,259 Acres (- 3%)
500,000,000 Pounds * (- 13%)



Selling Catfish

2007 Average Farm-bank
Price = \$0.78 (\$0.838 – \$0.666)
Farm Gate Value = \$382,357,000

*whole weight to the process plant (for 2007)

1/23/2008

2005 US AQUACULTURE Census TILAPIA STATUS

128 Farms
17,203,000 lbs.
Farm Gate Value
= \$ 29.62 million (\$1.72)

Imports (Estimated 2006)
350-360 million pounds
=780-800 m lbs LWE



Tilapia Farm in California

1/23/2008

2006 US AQUACULTURE TROUT (USDA) STATISTICS

604 Operations

(selling or distributing)

63,713,000 lbs. (+2.038)

(food size & fingerlings)



Farm Gate Value = \$ 74,200,000 (+ 0.655 m)

(fish sales only)

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2005 US AQUACULTURE Census HYBRID STRIPED BASS OVERVIEW

67 Farms

10,970,000 lbs.

Produced

\$2.52 / lbs. ave

Farm Gate Value = \$ 27,655,00



1/23/2008

Business Planning & Permitting Assistance

Ms. Debra Sloan, NCDA & CS
Aquaculture Business Advisor
Western NC (828 524-1264)



NC STATE UNIVERSITY

Mr. William Small, NCDA & CS
Seafood Marketing
(252 331-4773)



Mr. Matt Parker, NCDA & CS
NCCES
Aquaculture Economist
Craven County Ag Bldg.
(252 633-1477)



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Technical Assistance Western NC Cooperative Extension Service

Mr. Skip Thompson
Area Aquaculture Agent
Waynesville, NC
(828 456-3575)



NC STATE UNIVERSITY

Ms. Molly Sandfoss
Area Aquaculture Agent
Marion
(828 652-7121)



Dr. Jeff Hinshaw
Aquaculture Specialist
Fletcher, NC
(828 684-3562)



1/23/2008

Technical Assistance

Eastern NC Cooperative Extension Service



Mr. Steve Gabel
Area Aquaculture Agent
(252 793-2163)



Mr. Mike Frinsko
Area Aquaculture Agent
(252 448-9621)



Dr. David Green
Seafood Specialist
(252 222-6304)



NC STATE UNIV

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Aquaculture Education

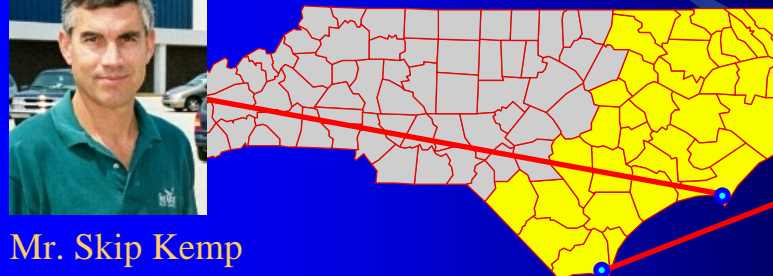
Eastern NC Community Colleges



Mr. Skip Kemp
Carteret Community College
(252 222-6114)



Dr. Doug Holland
Brunswick Community College
(910 755-7432)



NC STATE UNIVERSITY

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Campus Based Specialists



Dr. Tom Losordo
NC State, Raleigh
(919 515-6784)

NC STATE UNIVERSITY



Mr. Dennis DeLong
NC Fish Barn, Raleigh
(919 513-2106)



Dr. Marc Turano
Sea Grant, NC State
(919 513-0122)



Dr. Harry Daniels
NC State, Raleigh
Tidewater Res. Stn
(919 515-4589)

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Aquaculture Research Personnel



NC State Campus
Dr. Russell Borski



NC State Campus
Pamlico Field Lab
Dr. Craig Sullivan



UNC Wilmington
Dr. Wade Watanabe

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NCSU College of Veterinary Medicine



Dr. Ed Noga



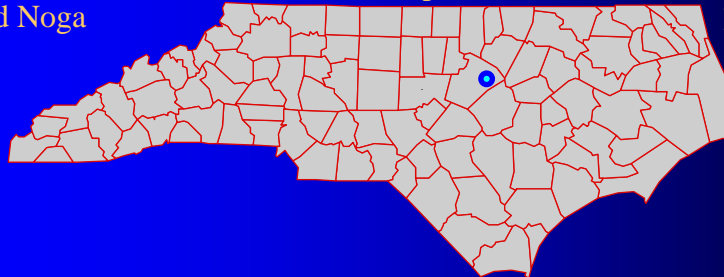
Dr. Michael Stoskopf



Dr. Jay Levine



Dr. Greg Lewbart



Dr. Craig Harms

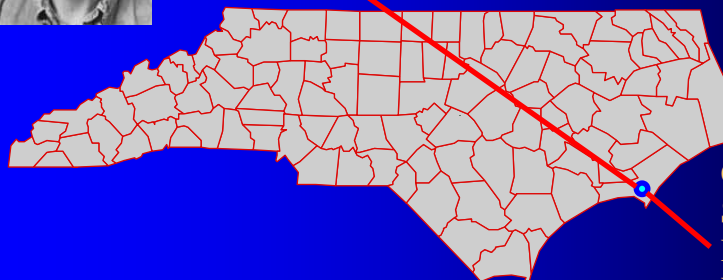
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Aquaculture Research Personnel



Center for Marine Science & Technology, NCSU
Dr. David Eggleston
Professor
Center Director



CMAST, NCSU
Seafood Lab
Dr. David Green
Professor
Ext. Specialist

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AQUACULTURE IN EDUCATION High Schools

Teaching Science
through Aquaculture



Mr. Barry Bey, Instructor & Student
South Brunswick High School

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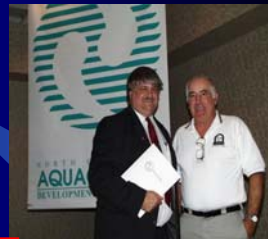
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AQUACULTURE CONFERENCES

A Public / Private Partnership for 20 Years

Major Sponsors

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NC State University
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NC Small Business Tech. Dev. Center
NC Sea Grant
NC Aquaculture Association



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